TGAAAGACCC CACCTGTAGG TTTGGCAAGC TAGCTTAAGT AACGCCATTT 1 TGCAAGGCAT GGAAAAATAC ATAACTGAGA ATAGAGAAGT TCAGATCAAG 51 GTCAGGAACA GATGGAACAG CTGAATATGG GCCAAACAGG ATATCTGTGG 101 TAAGCAGTTC CTGCCCCGGC TCAGGGCCAA GAACAGATGG AACAGCTGAA 151 TATGGGCCAA ACAGGATATC TGTGGTAAGC AGTTCCTGCC CCGGCTCAGG 201 GCCAAGAACA GATGGTCCCC AGATGCGGTC CAGCCCTCAG CAGTTTCTAG 251 AGAACCATCA GATGTTTCCA GGGTGCCCCA AGGACCTGAA ATGACCCTGT 301 351 GCCTTATTIG AACTAACCAA TCAGTTCGCT TCTCGCTTCT GTTCGCGCGC TTCTGCTCCC CGAGCTCAAT AAAAGAGCCC ACAACCCCTC ACTCGGGGCG 401 CCAGTCCTCC GATTGACTGA GTCGCCCGGG TACCCGTGTA TCCAATAAAC 451 CCTCTTGCAG TTGCATCCGA CTTGTGGTCT CGCTGTTCCT TGGGAGGGTC 501 TCCTCTGAGT GATTGACTAC CCGTCAGCGG GGGTCTTTCA TTTGGGGGGCT 551 CGTCCGGGAT CGGGAGACCC CTGCCCAGGG ACCACCGACC CACCACCGGG 601 651 AGGTAAGCTG GCCAGCAACT TATCTGTGTC TGTCCGATTG TCTAGTGTCT ATGACTGATT TTATGCGCCT GCGTCGGTAC TAGTTAGCTA ACTAGCTCTG 701 751 TATCTGGCGG ACCCGTGGTG GAACTGACGA GTTCGGAACA CCCGGCCGCA ACCCTGGGAG ACGTCCCAGG GACTTCGGGG GCCGTTTTTG TGGCCCGACC 801 TGAGTCCAAA AATCCCGATC GTTTTGGACT CTTTGGTGCA CCCCCCTTAG 851

FIG. 1A

901 AGGAGGGATA TGTGGTTCTG GTAGGAGACG AGAACCTAAA ACAGTTCCCG CCTCCGTCTG AATTTTTGCT TTCGGTTTGG GACCGAAGCC GCGCCGCGCG 951 TCTTGTCTGC TGCAGCATCG TTCTGTGTTG TCTCTGTCTG ACTGTGTTTC 1001 1051 TGTATTTGTC TGAGAATATG GGCCCGCGGG CCAGACTGTT ACCACTCCCT TAAGTTTGAC CTTAGGTCAC TGGAAAGATG TCGAGCGGAT CGCTCACAAC 1101 1151 CAGTCGGTAG ATGTCAAGAA GAGACGTTGG GTTACCTTCT GCTCTGCAGA ATGGCCAACC TTTAACGTCG GATGGCCGCG AGACGGCACC TTTAACCGAG 1201 1251 ACCTCATCAC CCAGGTTAAG ATCAAGGTCT TTTCACCTGG CCCGCATGGA CACCCAGACC AGGTCCCCTA CATCGTGACC TGGGAAGCCT TGGCTTTTGA 1301 1351 CCCCCCTCCC TGGGTCAAGC CCTTTGTACA CCCTAAGCCT CCGCCTCCTC TTCCTCCATC CGCCCCGTCT CTCCCCCTTG AACCTCCTCG TTCGACCCCG 1401 1451 CCTCGATCCT CCCTTTATCC AGCCCTCACT CCTTCTCTAG GCGCCAAACC TAAACCTCAA GTTCTTTCTG ACAGTGGGGG GCCGCTCATC GACCTACTTA 1501 CAGAAGACCC CCCGCCTTAT AGGGACCCAA GACCACCCCC TTCCGACAGG 1551 GACGGAAATG GTGGAGAAGC GACCCCTGCG GGAGAGGCAC CGGACCCCTC 1601 1651 CCCAATGGCA TCTCGCCTAC GTGGGAGACG GGAGCCCCCT GTGGCCGACT 1701 CCACTACCTC GCAGGCATTC CCCCTCCGCG CAGGAGGAAA CGGACAGCTT 1751 CAATACTGGC CGTTCTCCTC TTCTGACCTT TACAACTGGA AAAATAATAA

FIG.~1B

CCCTTCTTTT TCTGAAGATC CAGGTAAACT GACAGCTCTG ATCGAGTCTG 1801 1851 TTCTCATCAC CCATCAGCCC ACCTGGGACG ACTGTCAGCA GCTGTTGGGG ACTCTGCTGA CCGGAGAAGA AAAACAACGG GTGCTCTTAG AGGCTAGAAA 1901 1951 GGCGGTGCGG GGCGATGATG GGCGCCCCAC TCAACTGCCC AATGAAGTCG ATGCCGCTTT TCCCCTCGAG AATTCTACCG GGTAGGGGAG GCGCTTTTCC 2001 CAAGGCAGTC TGGAGCATGC GCTTTAGCAG CCCCGCTGGC ACTTGGCGCT 2051 2101 ACACAAGTGG CCTCTGGCCT CGCACACATT CCACATCCAC CGGTAGCGCC AACCGGCTCC GTTCTTTGGT GGCCCCTTCG CGCCACCTTC TACTCCTCCC 2151 CTAGTCAGGA AGTTCCCCCC GCCCCGCAGC TCGCGTCGTG CAGGACGTGA 2201 2251 CAAATGGAAG TAGCACGTCT CACTAGTCTC GTGCAGATGG ACAGCACCGC TGAGCAATGG AAGCGGGTAG GCCTTTGGGG CAGCGGCCAA TAGCAGCTTT 2301 2351 GCTCCTTCGC TTTCTGGGCT CAGAGGCTGG GAAGGGGTGG GTCCGGGGGC GGGCTCAGGG GCGGGCTCAG GGGCGGGGCG GGCGCGAAGG TCCTCCGGAG 2401 CCCGGCATTC TGCACGCTTC AAAAGCGCAC GTCTGCCGCG CTGTTCTCCT 2451 CTTCCTCATC TCCGGGCCTT TCGACCGGAT CCGGCGATTA GTCCAATTTG 2501 2551 TTAAAGACAG GATATCAGTG GTCCAGGCTC TAGTTTTGAC TCAACAATAT CACCAGCTGA AGCCTATAGA GTACGAGCCA TAGATAAAAT AAAAGATTTT 2601 2651 ATTTAGTCTC CAGAAAAAGG GGGGAATGAA AGACCCCACC TGTAGGTTTG

FIG.1C

GCAAGCTAGC TTAAGTAACG CCATTTTGCA AGGCATGGAA AAATACATAA 2701 CTGAGAATAG AGAAGTTCAG ATCAAGGTCA GGAACAGATG GAACAGGGTC 2751 GACCCTAGAG AACCATCAGA TGTTTCCAGG GTGCCCCAAG GACCTGAAAT 2801 GACCCTGTGC CTTATTTGAA CTAACCAATC AGTTCGCTTC TCGCTTCTGT 2851 2901 TCGCGCGCTT CTGCTCCCCG AGCTCAATAA AAGAGCCCAC AACCCCTCAC 2951 TOGGGGGGC AGTOOTOCGA TIGACTGAGT CGCCCGGGTA CCCGTGTATC CAATAAACCC TCTTGCAGTT GCATCCGACT TGTGGTCTCG CTGTTCCTTG 3001 GGAGGGTCTC CTCTGAGTGA TTGACTACCC GTCAGCGGGG GTCTTTCATT 3051 3101 TATGTGTCAT AAATATTTCT AATTTTAAGA TAGTATCTCC ATTGGCTTTC TACTITITET TITTATITIT TITTGTCCTC TGTCTCCATG TGTTGTTGTT 3151 3201 GIIGITIGIT IGITIGITIG ITGGTTGGTT GGTTAATTIT TITTTAAAGA 3251 TCCTACACTA TAGTTCAAGC TAGACTATTA GCTACTCTGT AACCCAGGGT GACCTTGAAG TCATGGGTAG CCTGCTGTTT TAGCCTTCCC ACATCTAAGA 3301 TTACAGGTAT GAGCTATCAT TTTGGTATAT TGATTGATTG ATTGATTGAT 3351 GTGTGTGTGT GTGATTGTGT TTGTGTGTGT GATTGTGTAT ATGTGTGTAT 3401 3451 3501 3551

FIG. 1D

3601 TTATGGTAGT GAGAGGCAAC GCTCCGGCCC AGGCGTCAGG TTGGTTTTTG AGACAGAGTC TITCACTTAG CTTGAATTCT TGAAGACGAA AGGGCCTCGT 3651 GATACGCCTA TITTTATAGG TTAATGTCAT GATAATAATG GTTTCTTAGA 3701 CGTCAGGTGG CACTTTTCGG GGAAATGTGC GCGGAACCCC TATTTGTTTA 3751 3801 TITITCTAAA TACATICAAA TATGTATCCG CTCATGAGAC AATAACCCTG 3851 ATAAATGCTT CAATAATATT GAAAAAGGAA GAGTATGAGT ATTCAACATT TCCGTGTCGC CCTTATTCCC TTTTTTGCGG CATTTTGCCT TCCTGTTTTT 3901 GCTCACCCAG AAACGCTGGT GAAAGTAAAA GATGCTGAAG ATCAGTTGGG 3951 TGCACGAGTG GGTTACATCG AACTGGATCT CAACAGCGGT AAGATCCTTG 4001 AGAGTTTTCG CCCCGAAGAA CGTTTTCCAA TGATGAGCAC TTTTAAAGTT 4051 4101 CTGCTATGTG GCGCGGTATT ATCCCGTGTT GACGCCGGGC AAGAGCAACT CGGTCGCCGC ATACACTATT CTCAGAATGA CTTGGTTGAG TACTCACCAG 4151 TCACAGAAAA GCATCTTACG GATGGCATGA CAGTAAGAGA ATTATGCAGT 4201 GCTGCCATAA CCATGAGTGA TAACACTGCG GCCAACTTAC TTCTGACAAC 4251 GATCGGAGGA CCGAAGGAGC TAACCGCTTT TTTGCACAAC ATGGGGGATC 4301 4351 ATGTAACTCG CCTTGATCGT TGGGAACCGG AGCTGAATGA AGCCATACCA AACGACGAGC GTGACACCAC GATGCCTGCA GCAATGGCAA CAACGTTGCG 4401 CAAACTATTA ACTGGCGAAC TACTTACTCT AGCTTCCCGG CAACAATTAA 4451

FIG. 1E

TAGACTGGAT GGAGGCGGAT AAAGTTGCAG GACCACTTCT GCGCTCGGCC 4501 4551 CITCCGGCTG GCTGGTTTAT TGCTGATAAA TCTGGAGCCG GTGAGCGTGG GTCTCGCGGT ATCATTGCAG CACTGGGGCC AGATGGTAAG CCCTCCCGTA 4601 4651 TCGTAGTTAT CTACACGACG GGGAGTCAGG CAACTATGGA TGAACGAAAT 4701 AGACAGATCG CTGAGATAGG TGCCTCACTG ATTAAGCATT GGTAACTGTC AGACCAAGTT TACTCATATA TACTTTAGAT TGATTTAAAA CTTCATTTTT 4751 4801 AATTTAAAAG GATCTAGGTG AAGATCCTTT TTGATAATCT CATGACCAAA ATCCCTTAAC GTGAGTTTTC GTTCCACTGA GCGTCAGACC CCGTAGAAAA 4851 4901 GATCAAAGGA TCTTCTTGAG ATCCTTTTTT TCTGCGCGTA ATCTGCTGCT 4951 TGCAAACAAA AAAACCACCG CTACCAGCGG TGGTTTGTTT GCCGGATCAA 5001 GAGCTACCAA CTCTTTTTCC GAAGGTAACT GGCTTCAGCA GAGCGCAGAT 5051 ACCAAATACT GTCCTTCTAG TGTAGCCGTA GTTAGGCCAC CACTTCAAGA 5101 ACTICTGTAGE ACCGCCTACA TACCTCGCTC TGCTAATCCT GTTACCAGTG GCTGCTGCCA GTGGCGATAA GTCGTGTCTT ACCGGGTTGG ACTCAAGACG 5151 ATAGTTACCG GATAAGGCGC AGCGGTCGGG CTGAACGGGG GGTTCGTGCA 5201 CACAGCCCAG CTTGGAGCGA ACGACCTACA CCGAACTGAG ATACCTACAG 5251 5301 CGTGAGCTAT GAGAAAGCGC CACGCTTCCC GAAGGGAGAA AGGCGGACAG 5351 GTATCCGGTA AGCGGCAGGG TCGGAACAGG AGAGCGCACG AGGGAGCTTC $FIG.\ 1F$

CAGGGGAAA CGCCTGGTAT CTTTATAGTC CTGTCGGGTT TCGCCACCTC 5401 TGACTTGAGC GTCGATTTTT GTGATGCTCG TCAGGGGGGC GGAGCCTATG 5451 GAAAAACGCC AGCAACGCGG CCTTTTTACG GTTCCTGGCC TTTTGCTGGC 5501 CTITTGCTCA CATGTTCTTT CCTGCGTTAT CCCCTGATTC TGTGGATAAC 5551 CGTATTACCG CCTTTGAGTG AGCTGATACC GCTCGCCGCA GCCGAACGAC 5601 CGAGCGCAGC GAGTCAGTGA GCGAGGAAGC GGAAGAGCGC CTGATGCGGT 5651 ATTITCTCCT TACGCATCTG TGCGGTATTT CACACCGCAT ATGGTGCACT 5701 CTCAGTACAA TCTGCTCTGA TGCCGCATAG TTAAGCCAGT ATACACTCCG 5751 CTATCGCTAC GTGACTGGGT CATGGCTGCG CCCCGACACC CGCCAACACC 5801 5851 CGCTGACGCG CCCTGACGGG CTTGTCTGCT CCCGGCATCC GCTTACAGAC AAGCTGTGAC CGTCTCCGGG AGCTGCATGT GTCAGAGGTT TTCACCGTCA 5901 TCACCGAAAC GCGCGAGGCA GCTGCGGTAA AGCTCATCAG CGTGGTCGTG 5951 AAGCGATTCA CAGATGTCTG CCTGTTCATC CGCGTCCAGC TCGTTGAGTT 6001 6051 TCTCCAGAAG CGTTAATGTC TGGCTTCTGA TAAAGCGGGC CATGTTAAGG GCGGTTTTTT CCTGTTTGGT CACTGATGCC TCCGTGTAAG GGGGATTTCT 6101 6151 GTTCATGGGG GTAATGATAC CGATGAAACG AGAGAGGATG CTCACGATAC GGGTTACTGA TGATGAACAT GCCCGGTTAC TGGAACGTTG TGAGGGTAAA 6201 6251 CAACTGGCGG TATGGATGCG GCGGGACCAG AGAAAAATCA CTCAGGGTCA

FIG. 1G

6301 ATGCCAGCGC TTCGTTAATA CAGATGTAGG TGTTCCACAG GGTAGCCAGC 6351 AGCATCCTGC GATGCAGATC CGGAACATAA TGGTGCAGGG CGCTGACTTC 6401 CGCGTTTCCA GACTTTACGA AACACGGAAA CCGAAGACCA TTCATGTTGT TGCTCAGGTC GCAGACGTTT TGCAGCAGCA GTCGCTTCAC GTTCGCTCGC 6451 6501 GTATCGGTGA TTCATTCTGC TAACCAGTAA GGCAACCCCG CCAGCCTAGC 6551 CGGGTCCTCA ACGACAGGAG CACGATCATG CGCACCCGTG GCCAGGACCC 6601 AACGCTGCCC GAGATGCGCC GCGTGCGGCT GCTGGAGATG GCGGACGCGA 6651 TGGATATGTT CTGCCAAGGG TTGGTTTGCG CATTCACAGT TCTCCGCAAG AATTGATTGG CTCCAATTCT TGGAGTGGTG AATCCGTTAG CGAGGTGCCG 6701 CCGGCTTCCA TTCAGGTCGA GGTGGCCCGG CTCCATGCAC CGCGACGCAA 6751 6801 CGCGGGGAGG CAGACAAGGT ATAGGGCGGC GCCTACAATC CATGCCAACC CGTTCCATGT GCTCGCCGAG GCGGCATAAA TCGCCGTGAC GATCAGCGGT 6851 CCAGTGATCG AAGTTAGGCT GGTAAGAGCC GCGAGCGATC CTTGAAGCTG 6901 TCCCTGATGG TCGTCATCTA CCTGCCTGGA CAGCATGGCC TGCAACGCGG 6951 7001 GCATCCCGAT GCCGCCGGAA GCGAGAAGAA TCATAATGGG GAAGGCCATC CAGCCTCGCG TCGCGAACGC CAGCAAGACG TAGCCCAGCG CGTCGGCCGC 7051 CATGCCGGCG ATAATGGCCT GCTTCTCGCC GAAACGTTTG GTGGCGGGAC 7101 7151 CAGTGACGAA GGCTTGAGCG AGGGCGTGCA AGATTCCGAA TACCGCAAGC

 $FIG.\,1H$

GACAGGCCGA TCATCGTCGC GCTCCAGCGA AAGCGGTCCT CGCCGAAAAT 7201 7251 GACCCAGAGC GCTGCCGGCA CCTGTCCTAC GAGTTGCATG ATAAAGAAGA CAGTCATAAG TGCGGCGACG ATAGTCATGC CCCGCGCCCA CCGGAAGGAG 7301 CTGACTGGGT TGAAGGCTCT CAAGGGCATC GGTCGACGCT CTCCCTTATG 7351 CGACTCCTGC ATTAGGAAGC AGCCCAGTAG TAGGTTGAGG CCGTTGAGCA 7401 CCGCCGCCGC AAGGAATGGT GCATGCAAGG AGATGGCGCC CAACAGTCCC 7451 CCGGCCACGG GGCCTGCCAC CATACCCACG CCGAAACAAG CGCTCATGAG 7501 CCCGAAGTGG CGAGCCCGAT CTTCCCCATC GGTGATGTCG GCGATATAGG 7551 CGCCAGCAAC CGCACCTGTG GCGCCGGTGA TGCCGGCCAC GATGCGTCCG 7601 GCGTAGAGCG CCACAGGACG GGTGTGGTCG CCATGATCGC GTAGTCGATA 7651 7701 GTGGCTCCAA GTAGCGAAGC GAGCAGGACT GGGCGGCGGC CAAAGCGGTC GGACAGTGCT CCGAGAACGG GTGCGCATAG AAATTGCATC AACGCATATA 7751 7801 GCGCTAGCAG CACGCCATAG TGACTGGCGA TGCTGTCGGA ATGGACGATA TCCCGCAAGA GGCCCGGCAG TACCGGCATA ACCAAGCCTA TGCCTACAGC 7851 ATCCAGGGTG ACGGTGCCGA GGATGACGAT GAGCGCATTG TTAGATTTCA 7901 TACACGGTGC CTGACTGCGT TAGCAATTTA ACTGTGATAA ACTACCGCAT 7951 TAAAGCTTTG CTTAGGAGTT TCCTAATACA TCCCAAACTC AAATATATAA 8001 GCATTTGACT TGTTCTATGC CCTAGGGGGA GGGGGGAAGC TAAGCCAGCT 8051 FIG.~1I

TTTTTTAACA TTTAAAATGT TAATTCCATT TTAAATGCAC AGATGTTTTT 8101
ATTTCATAAG GGTTTCAATG TGCATGAATG TCGCAATATC CTGTTACCAA 8151
AGCTAGTATA AATAAAAATA GATAAACGTG GAAATTACTT AGAGTTTCTG 8201
TCATTAACGT TTCCTTCCTC AGTTGACAAC ATAAATGCGC TGCTGAGAAG 8251
CCAGTTTGCA TCTGTCAGGA TCAATTTCCA TTATGCCAGT CATATTAATT 8301
ACTAGTCAAT TAGTTGATTT TTGACATATA CATGTGAA

FIG. 1J

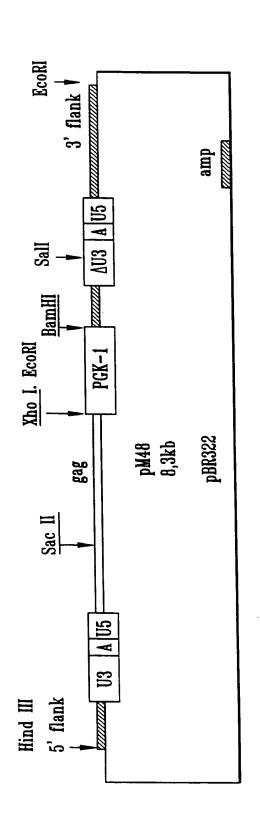


FIG. 2